

Application No. 10/813 153

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REMARKS

Claims 17-20 and 22-28 are pending. Claims 17-20 and 22-28 stand rejected. Claim 17 has been amended for clarity to state that the skin care composition is to be applied to the area of the skin that is to be treated, which is consistent with p. 5, lines 1-2 of the specification. Accordingly, no new matter is introduced with these amendments.

Reply to the Rejection of Claims 17-20 and 22-28 under 35 U.S.C. § 103(a)

Claims 17-20 and 22-28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of U.S. Patent No. 6,264,933 to Bodelin *et al.* ("Bodelin") and U.S. Patent No. 5,626,840 to Thomaides *et al.* ("Thomaides"). Specifically, the Examiner states –

The claims are drawn to method of treating skin comprising applying a skin care composition comprising neutralized, solubilized anionic polyurethane and at least one solvent. The specification does not define the meaning for "treating skin". The specification discloses various examples drawn to cosmetic compositions and based upon the disclosure it is the examiners position that "treating skin" is equivalent to cosmetic compositions applied to skin. The specification defines "solubilized urethane" as urethane being soluble in solvent. Neutralized means having a base in the composition. Patent '840 is to hair fixative application and the patent teaches hair spray formulations and when formulations are sprayed on to hair there is contact with the skin and patent '840 is relied for this reason.

Patent '933 teaches compositions for coating keratin fibers, which is to mascara. Mascara is a skin care composition belonging to color cosmetics. Patent '933 teaches using anionic polyurethanes. See claim 1 for film-former and see claim 11 for anionic polyurethane and see solvents at col. 4, lines 17-25. See col. 4, lines 5-9 for the concentration of the polymer. The solvents, which are taught by the patent is also the solvents used for making the polyurethane solubilized in the instant application. The patent also teaches use of water-soluble polymers like polyacrylates and polymethacrylate. See col. 4, lines 30-35 and 48-49. The difference between the patent and the instant application is the patent teaches film former (anionic polyurethane) dispersed in the aqueous phase and the patent does not disclose base where the polyurethane is neutralized. However, patent '840 teaches anionic polyurethanes which can be soluble or dispersible in water. See the abstract, and see col.s 2-4 for the preparation of the polyurethane and see col. 5, lines 52-63 where the

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patent teaches that neutralization renders the polymer soluble or dispersible in water for easy formulation.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare skin care compositions using the anionic polyurethane for treating skin and add base to the compositions, which make the polyurethane neutralized as well as solubilized, taught by patent '840. One of ordinary skill in the art would be motivated to add base into the skin care compositions with the reasonable expectation of success that the compositions which have the base demonstrate good humidity resistance, forms a clear transparent glossy film that is easily removable with water. This is a prima facie case of obviousness.

For the following reasons Applicants respectfully traverse the Examiner's rejection of claims 17-20 and 22-28 as being obvious in view of the combination of Bodelin and Thomaides.

As previously noted, Bodelin teaches cosmetic compositions for keratin fibers (mascara for eyelashes) formed from at least one lamellar filler and an aqueous phase dispersed in a liquid fatty phase containing at least one volatile organic solvent (Abstract). The aqueous phase contains a polymer system comprising at least one film-forming polymer dispersed in the aqueous phase in the form of solid particles (Abstract; col. 1, lines 55-63; col. 2, lines 18-21).

The Examiner states that Bodelin "teaches anionic polyurethanes which can be soluble or dispersible in water". Applicants for the record emphatically state that Bodelin does NOT teach solubilized anionic polyurethanes. It is noted that the Examiner has provided no proof whatsoever that Bodelin teaches this. The Examiner refers to claims 1 and 11 as teaching this. However, from claim 1 we see that the film former "is dispersed in the aqueous phase as solid particles" (emphasis added). Accordingly, the anionic polyurethane of dependent claim 11 must also be solid particles dispersed in the aqueous phase of the composition. Nowhere are solubilized anionic polyurethanes taught or suggested. (See, col. 2, lines 22-25 stating that the film forming polymer in the polymer system is in the form of a dispersion of solid particles; see also, col. 4, lines 14-16 providing the size of the film forming particles. It is noted that the description of particle size is provided in the paragraph just preceding the paragraph regarding solvents that may be included in the aqueous phase.) In applications such as the mascara of Bodelin, it is desirable that the polymer be in particles, as particles provide a lower

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viscosity and enable better flow of the cosmetic onto the eyelashes. In contrast, in skin care applications, a solubilized polymer gives additional formula viscosity, which is a benefit for emulsion stability and aesthetic reasons.

As noted in the present description, “[p]olyurethane dispersions are easier to manufacture than solutions. However, dispersed polyurethanes may result in many undesirable properties when formulated in cosmetic formulations.” In contrast to Bodelin, the present application is directed towards solubilized anionic polyurethanes, not dispersions of film-forming particles that might be chosen from anionic polyurethanes.

Contrasting Bodelin, the polyurethane of the presently claimed invention is not dispersed as solid particles in the formula. Instead, it is neutralized and soluble in the aqueous phase. The present invention incorporates the film formation property of a polymer as deposited from a solution. Films deposited from solid particles, such as those taught by Bodelin, are much less homogeneous.

Regarding the Examiner’s statement that “[n]eutralized means having a base in the composition”, such a statement is incorrect. From HAWLEY’S CONDENSED CHEMICAL DICTIONARY, 11th Ed., p. 816, Van Nostrand Reinhold, New York (1987), ‘neutralization’ is defined as a “chemical reaction in which water is formed by mutual interaction of the ions that characterize acids and bases when both are present in an aqueous solution, i.e., $H^+ + OH^- \rightarrow H_2O$, the remaining product being a salt”. In the present application, the polymer contains an acid and a base is added to neutralize the acid, resulting in a salt.

Thomaides teaches polyurethanes with carboxylate functionality for hair fixative applications. The polyurethane of Thomaides is soluble or dispersible in water. It is prepared from an organic diisocyanate, a diol, and a 2,2-hydroxymethyl-substituted carboxylic acid. And it is neutralized with a cosmetically acceptable organic or inorganic base and formulated into a hair fixative composition containing low amounts of volatile organic solvent (Abstract). Thomaides is referred to at p. 1 of the present specification as an example of polyurethanes useful in hair fixative applications. As noted in the present description, the art (such as Thomaides) does not teach the use of polyurethanes in skin care compositions.

The Examiner refers to Thomaides for teaching anionic polyurethanes that are soluble or dispersible in water. The Examiner also notes that Thomaides teaches that

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neutralization renders the polymer soluble or dispersible in water for easy formulation. As stated by Thomaides, neutralization is for easy formulation in aqueous hair sprays (col. 5, lines 52-54). The Examiner further argues that Thomaides "is to hair fixative applications and the patent teaches hair spray formulations and when formulations are sprayed on to hair there is contact with the skin and [Thomaides] is relied on for this reason".

Both Bodelin and Thomaides are directed towards compositions for hair – Bodelin specifically towards eye mascara and Thomaides specifically towards hair spray. Neither reference teaches or suggests use of its composition on skin, specifically, applying its composition to an area of skin to be treated. Nowhere does Bodelin teach or suggest solubilizing its polymer. Since solid polymer particles are preferred in eye mascara applications, one skilled in the art would find no motivation from Bodelin to seek other forms of its polymer (*e.g.*, solubilized) for application. Therefore, Bodelin by itself does not teach or suggest or render obvious the presently claimed invention. Further, Bodelin provides no motivation to one skilled in the art to combine its teachings with the teachings of Thomaides.

As noted above, Thomaides is directed towards hair sprays. Nowhere does Thomaides teach or suggest use of its polymer in skin care compositions. Instead, Thomaides only teaches applying its polymer to hair in the form of a hairspray. It is well recognized that hairsprays are targeted for use on hair. Further, one skilled in the art would not recommend their use on skin due to the organic solvents used in hairsprays. These solvents can dry and irritate the skin. Therefore, Thomaides provides no motivation for formulating its polymer in a skin care composition and then applying that composition to skin.

Regarding the Examiner's statement that Thomaides is relied on simply because hairspray may contact skin when applied to hair, claim 1 has been amended for clarity to state that the skin care composition is to be applied to the area to be treated, which is consistent with the skin evaluations discussed in the Examples and the statement in the present specification that the skin care compositions are to be "applied in the same manner as those known in the art". Incidental contact by a hairspray composition is not the same manner of application as known in the art. Further, such incidental contact does

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not constitute applying it to the area to be treated, as skin is obviously not the area to be treated with a hairspray.

Accordingly, claims 17-20 and 22-28 are not obvious in view of Bodelin and Thomaides. Withdrawal, therefore, of the rejection of claims 17-20 and 22-28 under 35 U.S.C. § 103(a) as being obvious in view of Bodelin and Thomaides is respectfully requested.


It is believed that the above amendments and remarks overcome the Examiner's rejections of the claims. Withdrawal of those rejections is respectfully requested. Allowance of the claims is believed to be in order, and such allowance is respectfully requested.

Respectfully submitted,

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